

# StorMagic ARQvault Video Surveillance Solutions

StorMagic ARQvault Video Surveillance solutions lets you capture video anywhere, store it forever, find it fast, and reduce storage costs by at least 50% versus other solutions. ARQvault Video Surveillance solutions consists of ARQvault, the first Active Intelligent Repository, and either the ARQvault VMS or VMS Connectors module.

- ARQvault VMS module** provides camera configuration, live viewing, video wall, specific third-party analytics integration, such as license plate and facial recognition, and more for a complete, full-featured video surveillance solution.
- ARQvault VMS Connectors module** is for customers that already have a front-end VMS

system, such as those from Milestone, Exacq, and Qognify. ARQvault VMS Connectors integrates with these systems and provides all the management, policies, active automated tiering, and intelligent search capabilities, along with dramatically lower storage costs, provided by ARQvault.

The ARQvault Video Surveillance solution with VMS module (ARQvault VMS) supports thousands of cameras and includes full-featured live viewing and video wall and is based on ARQvault:

- ARQvault is a collection of vaults creating a federated repository.** ARQvault software combines different

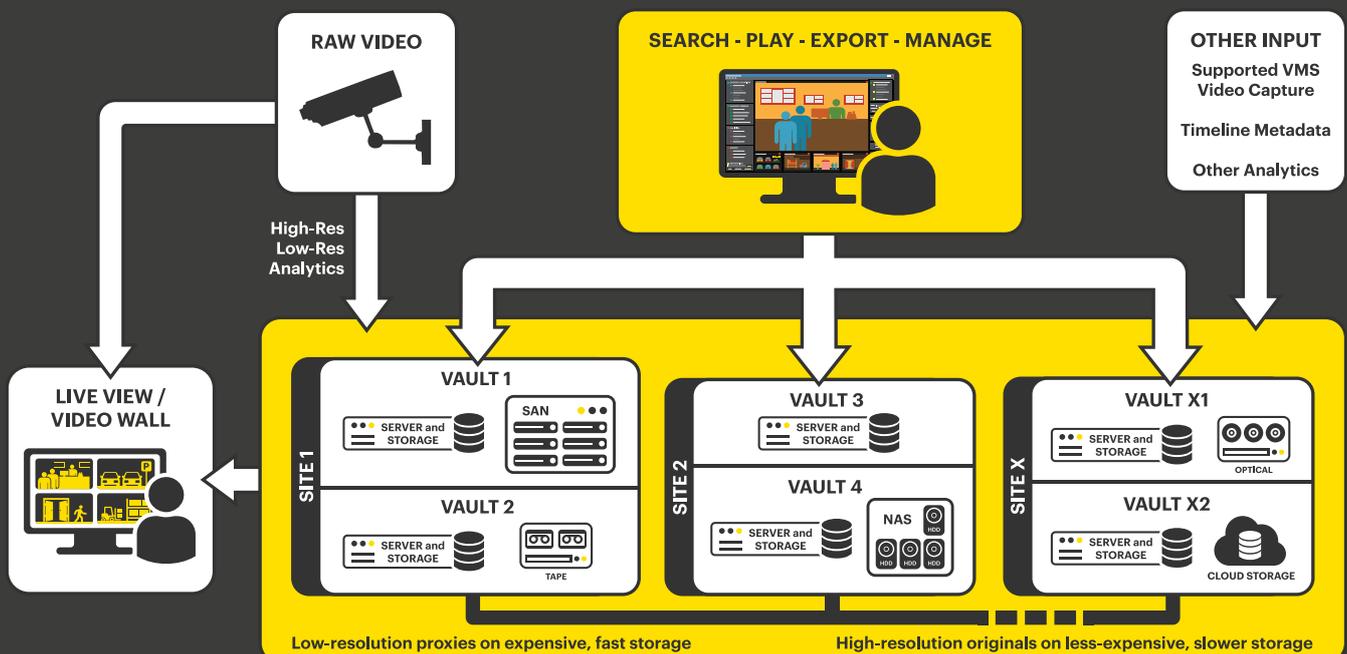


Fig 01: ARQvault Video Surveillance solution architecture

and distributed storage resources into an integrated system shared across the network. Vaults consist of a server, storage, and ARQvault software.

## 2. ARQvault is active.

Secondary storage, such as LTO tape libraries and Sony optical systems, cloud storage, and even offline storage are all an active part of the repository. ARQvault knows where all the video is and can actively seek, find, and retrieve any video in real time.

## 3. ARQvault is intelligent.

ARQvault uses policies to automatically move video to different storage tiers and creates low-resolution proxies of high-resolution video for fast retrieval. The use of metadata and customizable fields and integration with analytics packages provides for rich data analysis and discovery of new relationships and business assets.

### GATHER ANYWHERE.

Capture video from anywhere and expand easily when needed.

Use any digital asset from any source	Easily ingest video, images, audio, and other files and data, such as .pdf, .doc, .xls, .txt and more.
No vendor lock-in	Runs on x86 or ARM servers and works with any type of storage: internal disk, flash, NAS, SAN, optical, tape, and cloud.
Provides complete architectural flexibility	Any site can have one or more vaults. Easy to scale – add additional ingest points to one to thousands of sites in any location at any time.

### LIVE VIEW AND VIDEO WALL.

Full featured, massively scalable video wall included with ARQvault VMS.

Highly customizable	Supports thousands of monitors with multiple layouts.
Easy to use	Intuitive drag and drop user interface.
Complete control	Numerous settings for camera control, layout configuration, creating and utilizing patrols, camera pooling, and multi-camera video playback.
Action oriented	Screen pops and actions generated from programmable and analytics-based alerts and triggers.

### STORE FOREVER.

Store forever (if you want to) with secure, easy to manage, automated tiering. Gain complete control over video lifecycle management and dramatically lower storage costs.

Automated tiering: Optimize performance and reduce costs	Policies decide what video gets moved to lower cost storage tiers and when. Complete control over where video starts, how long it stays, and when larger files, such as high-res, move to more cost-effective tiers.
Three levels of access security	At the vault, storage, file levels. Integrates with Active Directory or local authentication with complete audit trail. Makes sure video is unaltered using a digital fingerprint (SHA-256) and provides chain-of-custody history.
Complete video lifecycle management	From birth to death. User interface offers managed flexibility in storing video. Easily export and share video: in-house, constituents, or third parties. Simplicity helps meet regulation, compliance, and legal requirements.

### FIND FAST.

Find video fast and apply powerful search and analytics capabilities with intelligent search using rich metadata.

Intelligent search: Fast results no matter video location or age	Numerous search categories: where video stored, file attributes, access level, metadata applied. Parallel search request to all vaults for fastest path to video. Quick results over slow networks using low-res proxies.
Metadata use throughout	Applied at ingest, used in tiering decisions, integrates with third-party analytics. Search and data use richer and more robust. Metadata can be applied at file and timeline levels for deep file analytics. Enables advanced reporting and audit capabilities.
Video is always there	Distributed architecture with no single point of failure. Store, move, and retrieve video to/from any vault, anywhere. Data resiliency built in. Continues to operate if any failure: video is always safe and available.



## SYSTEM REQUIREMENTS

### SERVER

<ul style="list-style-type: none"> <li>🔪 Windows Server 2008 R2 SP1</li> <li>🔪 Windows Server 2012 R2 (64-bit)</li> <li>🔪 Windows Server 2016 (64-bit)</li> </ul>	<ul style="list-style-type: none"> <li>🔪 Windows Server 2019 (64-bit)</li> <li>🔪 Windows Server 2022 (64-bit)</li> </ul>
<b>Processor Requirements:</b>	Intel Xeon® E3 3.10GHz or better
<b>Recording Server:</b>	Nvidia Graphics card
<b>Hard Drive Requirements:</b>	50 GB of available space to install and run the product. Additional space will be required based on video retention requirements
<b>Memory Requirements:</b>	16GB or more of RAM
<b>RAID Recommendations:</b>	OS RAID 1 (mirrored); Database RAID 1 (mirrored) (should not be on the same drive as the video cache); Data RAID 5 minimum (vault storage drive)

### CLIENT

<ul style="list-style-type: none"> <li>🔪 Windows 7 Professional SP1 (32-bit and 64-bit)</li> <li>🔪 Windows 8 (32-bit and 64-bit)</li> </ul>	<ul style="list-style-type: none"> <li>🔪 Windows 8.1 (32-bit and 64-bit)</li> <li>🔪 Windows 10 (64-bit)</li> </ul>
<b>Processor Requirements:</b>	Intel® Core i5 3.00 GHz or better
<b>Hard Drive Requirements:</b>	10 GB of available space to install and run the product. Additional space will be required based on video retention requirements
<b>Memory Requirements:</b>	8GB of RAM
<b>RAID Recommendations:</b>	OS RAID 1 (mirrored); Database RAID 1 (mirrored) (should not be on the same drive as the video cache); Data RAID 5 minimum (vault storage drive)

### OTHER

<b>Linux:</b>	Available upon request
<b>Network:</b>	Multicast packet routing is required between all server and client machines

### VAULT DISK SPACE

<b>Disk-only:</b>	Vault storage is required on all servers. In case of disk-only configurations, sufficient storage must be provided to store all original video for the required retention period	<ul style="list-style-type: none"> <li>🔪 Additional disk storage must be provided to store the low-resolution companion files and thumbnails, normally equal to 10% of the total digital data tape storage capacity.</li> <li>🔪 Database Disk Storage Database storage requirements vary based on the amount of stored video and the use of metadata.</li> <li>🔪 Each server has its own database which correlates to the video it is storing. As a guideline, every 16TB video storage requires 10 GB of disk storage as a minimum for the database.</li> </ul>
<b>Disk and Digital Data Tape:</b>	In a mixed storage environment of disk and digital data tape, sufficient disk storage must be provided to store original video for period which it is required to be stored on disk	



## ARCHITECTURAL HIGHLIGHTS

<b>Video ingests from 1000s of cameras or other VMS</b>	<ul style="list-style-type: none"> <li>Any ONVIF or RTSP-enabled IP camera, more than 6000 certified cameras, or use with Milestone, Exacq, or Qognify.</li> </ul>
<b>Live View and Video Wall</b>	<ul style="list-style-type: none"> <li>Full featured, massively scalable video wall. Highly configurable and customizable. Easy to use.</li> </ul>
<b>Consists of 1 to 1000s of vaults at 1 or more sites</b>	<ul style="list-style-type: none"> <li>Vaults consists of server, storage, ARQvault software.</li> </ul>
<b>Policy driven automated tiering</b>	<ul style="list-style-type: none"> <li>Determines where video starts, how long it is there, where it goes next.</li> </ul>
<b>Low-resolution proxy files created for ingested video</b>	<ul style="list-style-type: none"> <li>Take &lt;10% storage space of original versions.</li> <li>Originals moved to lower cost storage.</li> <li>Provides fast access to video for search, playback, and viewing.</li> <li>High-res versions always available.</li> </ul>
<b>Video is active on all storage tiers</b>	<ul style="list-style-type: none"> <li>Optical jukeboxes and tape libraries are active. Video can be retrieved immediately.</li> </ul>
<b>Parallel search requests sent to all vaults</b>	<ul style="list-style-type: none"> <li>Finds the fastest path to video.</li> <li>Fast response on slow networks using low-res proxies.</li> </ul>
<b>Video is secure, unaltered, always available</b>	<ul style="list-style-type: none"> <li>3 levels of access security.</li> <li>Digital fingerprint (SHA-256) and chain-of-custody history.</li> <li>No single point of failure.</li> </ul>

## MORE INFORMATION

There are additional resources available covering ARQvault capabilities and features on the [StorMagic website](#). Explore the [ARQvault solution brief](#) and [data sheet](#) and the [ARQvault for Video Surveillance solution brief](#).

Test ARQvault VMS in your environment free of charge. Simply download our fully functioning [free trial from the website](#).

If you have questions, or you would like a demo of ARQvault VMS contact the StorMagic team at [sales@stormagic.com](mailto:sales@stormagic.com).

## ARQvault SUPPORT

ARQvault Maintenance & Support provides organizations with access to StorMagic support resources, including product updates, knowledgebase access, and email support with our technical support staff. A summary is shown in the table below. More information on ARQvault Maintenance & Support can be found at [stormagic.com/company/support](http://stormagic.com/company/support).

<b>Hours of operation</b>	24 hours a day <sup>1</sup> (7 days a week)
<b>Length of service</b>	1, 3 or 5 years
<b>Product updates</b>	Yes
<b>Product upgrades</b>	Yes
<b>Access method</b>	Email + Telephone (via platinum engagement form on <a href="http://support.stormagic.com">support.stormagic.com</a> )
<b>Response method</b>	Email + Telephone + WebEx
<b>Maximum number of support administrators per contract</b>	4
<b>Response time</b>	1 hour
<sup>1</sup> Global, 24x7 support for Severity 1 - Critical Down & Severity 2 Degraded issues	

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